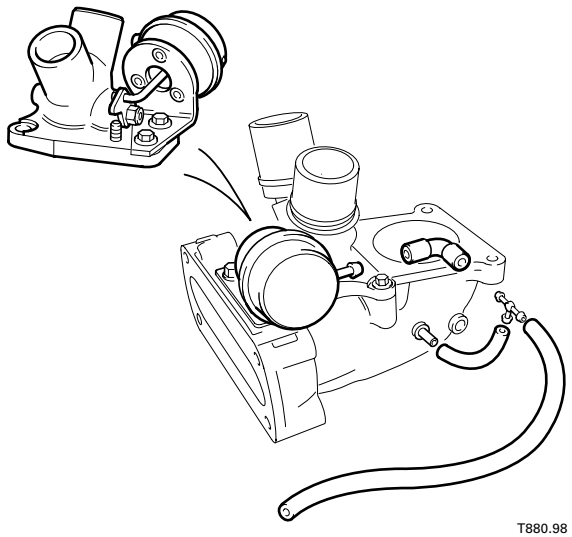
AJ26 / AJ27 SUPERCHARGED EMS

Supercharger Mechanical Components

BYPASS VALVE AND ACTUATOR – AJ26



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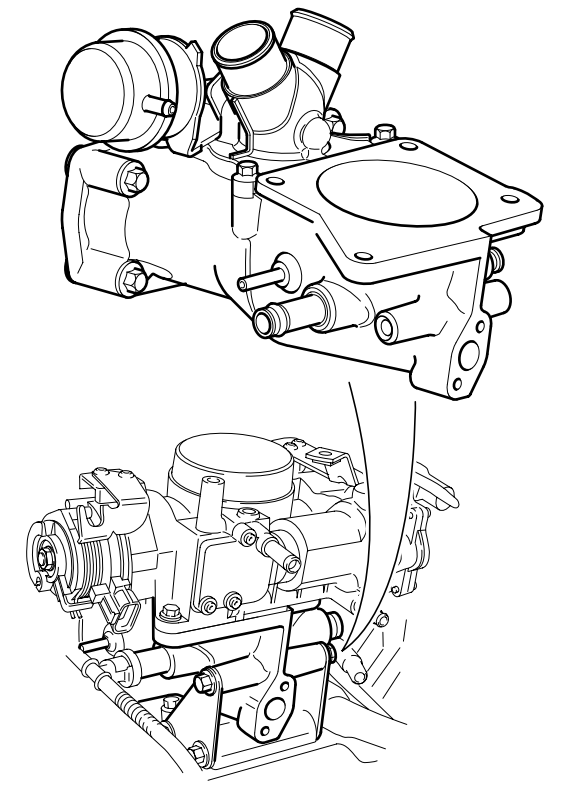
THROTTLE INDUCTION ELBOW – AJ27



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Bypass Valve and Actuator

The "butterfly" bypass valve is contained in a housing attached to the induction elbow. The valve is operated by a vacuum actuator. The valve controls bypass air flow from the charge air coolers to the induction elbow in order to regulate supercharger "boost pressure". The valve is held closed by spring pressure.

With closed (idle) or partially open (cruise) throttle, intake vacuum (between the induction elbow and the supercharger) acts on the actuator diaphragm to hold the valve full open to provide maximum supercharger bypass and optimum fuel economy. As the throttle is opened, intake vacuum falls progressively and spring force moves the valve toward closed until the valve is fully closed at full throttle, providing maximum supercharger boost and power.

Outlet Duct

The supercharger outlet duct directs the charge air from the supercharger to the two charge air coolers. The fill point and connections for the charge air cooler coolant circuit are integrated into the outlet duct. Vacuum source is provided for the fuel pressure regulator and for cruise control. Rubber ducts secured by clamp plates connect the outlet duct to the two charge air coolers.

NOTES